III. REMARKS

By the present amendment, the Abstract of the Disclosure has been amended to comply with MPEP § 608.01(b).

Claims 1-28 have been amended. Specifically, claims 1-28 have been amended to improve grammar, spelling, punctuation and/or clarity, which has no further limiting effect on the scope of the claims. With respect to independent claim 1, the limitation "extracting a subset from tabular format data viewed as an array of records" is supported on page 1, line 20, to page 2, line 5, of Applicant's English specification. Fig. 1(a) of Applicant's disclosure is a view showing a non-limiting example of tabular format data. In this example, each of the record numbers in array (100), which stores the record numbers, is made to correspond to values (item values) of items such as "member name," "area" and "fan" (See, e.g., reference character "101"). The data structure, as invented by the above-named inventor, holds tabular format data as shown in Figure 1(a) in the format as shown in Figures 2(a) to 2(c).

With respect to independent claim 1, the limitation "constructing the tabular format data by creating information blocks corresponding to respective items" is supported, for example, on page 19, lines 13-22, of Applicant's English specification. In accordance with the present invention, an information block of a data format such as shown in Figures 2(a) to 2(c) is created. Thus, data (information block) created by an information block creation program may be stored in the RAM (14), or in a predetermined area of an external storage medium (18).

In accordance with the present amendment, it is now clear that each record includes item values belonging to items, respectively. See, e.g., Independent claim 1, step (a). According to the present invention, the information blocks are related to the respective items and each information block includes a value list of the relevant item.

Furthermore, the preambles of independent claims 9 and 11 have been amended to recite "a data processing program stored in memory of a computer and operating the computer to extract a subset from tabular format data..." as supported on page 18, line 33, to page 19, line 21, of Applicant's specification as originally filed.

The present amendment adds no new matter to the above-captioned application.

A. The Invention

The present invention pertains broadly to a data processing method for extracting a subset from tabular format data, and to a data processing program stored in memory of a computer and operating the computer to extract a subset from tabular format data, such as may be used to efficiently process a subset of tabular format data. In accordance with an embodiment of the present invention, a data processing method for extracting a subset from tabular format data is provided that includes steps recited by independent claim 1. In accordance with another embodiment of the present invention, a data processing method for extracting a subset from tabular format data is provided that includes steps recited by independent claim 3. In accordance with another embodiment of the present invention, a data processing program stored in memory of a computer and operating the computer to extract a subset from tabular format data is provided that includes features recited by independent claim 9. In accordance with still another embodiment of the present invention, a data processing program stored in memory of a computer and operating the computer to extract a subset from tabular format data is provided that includes features recited by independent claim 11. Various other embodiments, in accordance with the present invention, are recited by the dependent claims.

An advantage provided by the various method and program embodiments of the present invention is that a subset of tabular-format data can be efficiently processed by shortening the amount of processing time required.

B. The Rejections

Claims 9-12, 27 and 28 stand rejected under 35 U.S.C. § 101 for allegedly failing to recite statutory subject matter.

Claims 1-28 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite.

Claims 1-28 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by "Shinji" (JP 2000-339390, hereafter, the "Shinji Document").

Applicant respectfully traverses the Examiner's rejections and requests reconsideration of the above-captioned application for the following reasons.

C. Applicant's Arguments

In view of the present amendment, claims 1-28 are now in compliance with 35 U.S.C. § 112.

i. The Section 101 Rejections

In view of the present amendment, independent claims 9 and 11 now recite "a data processing program stored in memory of a computer and operating the computer to extract a subset from tabular format data...." According to the Federal Circuit, a computer program embodied in a tangible medium, such as a memory of a computer, is statutory subject matter under 35 U.S.C. § 101. In re Beauregard, 53 F.3d 1583, 1584 (Fed. Cir. 1995). Therefore,

claims 9-12, 27 and 28 presently recite statutory subject matter in accordance with 35 U.S.C. § 101.

ii. The Section 102 Rejection

Anticipation under 35 U.S.C. § 102 requires showing the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick, 221 U.S.P.Q. 481, 485 (Fed. Cir. 1984). In this case, the Examiner has failed to establish a prima facie case of anticipation against the claimed invention because the Shinji Document fails to teach each and every limitation recited by Applicant's claims.

iii. The Shinji Document

The Shinji Document discloses a method for combining tabular format data (See English Machine translation corresponding to JP 2000-339390, claim 1, provided by the Examiner with the Office Action of September 16, 2008). Applicant points out that the Shinji Document (JP 2000-339390) corresponds to WIPO Document WO 00/73939 A1, a copy of which is filed herewith and to U.S. Patent 6,721,751 B1 (hereafter, the "Furusho Patent") as evident from The Delphion Integrated View corresponding to U.S. Patent 6,721,751 B1, a copy of which is filed herewith as "Exhibit A." In view of these facts, Applicant will discuss the disclosure of the Shinji Document with reference to the Furusho Patent.

The Shinji Document discloses a structure for table-format data with a small data size whereby a plurality of tables of table-format data can be joined as desired, a method of concatenating table-format data, and a method for displaying concatenated table-format data (See Abstract of the Furusho Patent). In accordance with the method disclosed by the Shinji

Document, each table of table-format data is constructed in a manner such that each table is divided into one or more information blocks consisting of: (i) a value list in which the field values are stored in the order of a field value number corresponding to the field value belonging to a specified field, and (ii) a pointer array in which pointer values for pointing to said field value numbers are stored in a unique record order (See Abstract of the Furusho Patent).

In other words, the Shinji Document discloses a method of concatenating a plurality of tables of table-format data where each table is represented by an array of records containing a field and the field values contained therein, wherein the method comprises the steps of: (a) constructing each table of table-format data in a manner such that each table is divided into one or more information blocks consisting of (i) a value list in which the field values are stored in the order of a field value number corresponding to the field value belonging to a specified field, and (ii) a pointer array in which pointer values for pointing to said field value numbers are stored in a unique record order; (b) finding equivalent fields among a plurality of tables of table-format data, identifying the information blocks for the equivalent fields in each of the plurality of tables of the table-format data; and (c) comparing the value lists contained in the identified information blocks, and setting both value lists to the same values, at the time of setting the value lists to the same values, adding pointer values to associated pointer arrays in the information block to which that field value is added, and by making the value lists contained in the information blocks for specific fields in the plurality of tables of table-format data equivalent, concatenating the table-format data (See, e.g., claim 1 of the Furusho Patent).

However, the Shinji Document does not teach, or even suggest, (i) "creating an ordered set array containing record numbers of records selected from the array of records, wherein the selected record numbers are arranged in a specified order in the ordered set

array" and (ii) "arranging a pointer value in the first pointer array at a position indicated by each of the record numbers of the ordered set array into an item value number array at a position corresponding to a position where the record number is arranged in the ordered set array" as recited by independent claims 1, 3, 9 and 11. The Shinji Document also does not teach, or even suggest, (iii)

> "creating a second value list storing value elements contained in the item value number array and a second pointer array storing position elements indicating elements in the second value list corresponding to the record numbers by referring to the item value number array, wherein
> a value in the first value list is specified from a record number of the ordered set array through a first element in the second pointer array at a position indicated by the record number and a second element in the second value list at a position indicated by the first element in the second pointer array"

as recited by claims 1 and 9, and (iv)

> "specifying a value in the first value list from a record number of the ordered set array through an element in the item value number array at a position indicated by the record number"

as recited by claims 3 and 11.

In other words, the Shinji Document does not teach, or suggest, steps (b), (c) and (d) recited by independent claims 1 and 9, and steps (b), (c) and (d) recited by independent claims 3 and 11 of the above-captioned application. According to the embodiments of the present invention recited by claims 1, 3, 9 and 11, a data processing method is provided that can efficiently handle a small subset from a very large tabular format data. With respect to the embodiments of the present invention recited by claims 1 and 9, the size of the value list is shrunk because the second value list, whose size is smaller than that of the first value list, is generated. Consequently, it is possible to shorten the processing time for retrieval, aggregation, sorting and joining.

For all of the above reasons, the Examiner has failed to establish a prima facie case of anticipation against any of Applicant's claims.

IV. CONCLUSION

In view of the present amendment, claims 1-28 are now in compliance with 35 U.S.C. §§ 101 and 112. Furthermore, the Examiner has failed to establish a prima facie case of anticipation against Applicant's claimed invention because the Shinji Document fails to teach each and every limitation of independent claims 1, 3, 9 and 11. In fact, the Shinji Document fails to teach steps (b), (c) and (d) of claims 1, 3, 9 and 11.

For all of the above reasons, claims 1-28 are in condition for allowance, and a prompt notice of allowance is earnestly solicited.

The below-signed attorney for Applicant welcomes any questions.

Respectfully submitted,

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